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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.       | CONFIRMATION NO.       |
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| 10/627,203  | 07/25/2003  | Michael R. Manzano   | TPTC-1-1006               | 2699                   |
| 25315 7590 12/27/2007<br>BLACK LOWE & GRAHAM, PLLC<br>701 FIFTH AVENUE<br>SUITE 4800<br>SEATTLE, WA 98104 |             |                      | EXAMINER<br>TRUONG, LECHI |                        |
|   |             |                      | ART UNIT<br>2194          | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>12/27/2007   | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/627,203

**Applicant(s)**

MANZANO, MICHAEL R.

**Examiner**

LeChi Truong

**Art Unit**

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-14 are presented for the examination.

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Kreller et al ( Us. Patent 6,981,251 B1).

As to claim 1, Sheneiderman teaches the invention substantially as claimed including: a mobile agent object (mobile agent, para [0023], ln 1-3/ para [0024], ln 8-10), a mobile to dynamically extend its capabilities (para [0023], ln 1-5), a mobile agent runtime environment (an execution [runtime] environment for the agents, in addition to sub-components for handling real-time collaboration between the mobile agent, para [0024], ln 10-13/ a number of servers interconnect ... launching or migration of agents onto other specified servers... both servers proving in which autonomous mobile agents may be independently executed, para[0101], ln 1-6 and 7-10), a host computing environment ( one host, para[0024], 1-4/ para[0025], ln 4-6/computing host in the heterogeneous computing environment, right col 15, ln 14-16),

executing a mobile agent in mobile-agent runtime environment in a host computing environment(para[0103], ln 12-15/ para[0107], ln 1-3/para[0122], ln 1-4).

Schneiderman does not explicitly teach configuring the mobile agent to install a service object to be executable. However, Kreller teaches configuring the mobile to install a service object to be executable (The agent system, which can be installed on computers connected in a computer network, has an agent platform and an agent system controller. The agent platform comprises service programs required by a mobile agent in order to be able to be executed on the respective computer, col 3, ln 11-17).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Schneiderman with Kreller to incorporate the feature of configuring the mobile agent to install a service object to be executable because this reduces the data throughput in the network, with any desired operations being able to be performed at the stations remote from the task issuer.

**As to claim 2**, Schneiderman teaches a first host computing environment, a second host computing environment having a mobile-agent runtime environment (both servers providing an environment in which autonomous mobile agents may be independently executed, para [0101], ln 3-10), accessing, with a first host computing environment, a second host computing environment having a mobile-agent runtime environment (para [0101], ln 3-10/ para [0122], ln 12-22), a first mobile-agent object operable (the mobile agents, para[0024], ln 6-13/para[0107], ln 1-3), operable to navigate to the second host computing environment( para[0101], ln 5-10/ 0103, ln 10-15/ para[0122], ln 1-3) and Kreller teaches generating in the first host a first mobile agent object(The individual computers 1 have a respective agent system AS-I. to AS-IV.

installed on them. The network contains a few mobile agents AG-I. to AG-IV., which are either arranged on one of the computers 1 or move from one computer to another, col 4, ln 65-67/ the agent system, which can be installed on computers connected in a computer network, has an agent platform and an agent system controller. The agent platform comprises service programs programs required by a mobile agent in order to be able to be executed on the respective computer, col 3, ln 11-17).

**As to claim 13**, Kreller teaches instructions that executed by a computer (col 1, ln 35-40).

3. Claims **3, 4-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Kreller et al ( Us. Patent 6,981251 B1), as applied to claim 1 above, and further in view of Yokoayama et al (US 2001/0029526 A1).

**As to claim 3**, Schneiderman teaches the mobile agent runtime environment (para [0024], ln 10-13 / para [0101], ln 1-6).

Schneiderman, Kreller do not teach the first mobile agent object is further operable to discover available service associated with the terminal. However, Yokoayama teaches the first mobile agent object is further operable to discover available service associated with the terminal (para [0046], ln 19-24/para [0058], ln 1-12).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman and Kreller with Yokoayama to incorporate the first mobile agent object is further operable to discover available service associated with the

terminal because this allows a program can be executed while moving between computers for fault avoidance and a fault occurrence at an agent destination.

**As to claim 4**, Schneiderman teaches the first host computing environment a second mobile agent object operable to navigate to the second host computing environment (para [0101], ln 5-10/ 0103, ln 10-15/ para [0122], ln 1-3) and Yokoayama teaches generating in the host a second mobile agent object (para [0045], ln 12), information associated with the available service (the traveling list 212 contains information about the service programs to be run at each home terminal, para [0045], ln 19-22), providing to the first host computing environment information associated with the available services( para[0045], ln 2-4 and ln 12-21/para[0046], ln 1-7/ right col 8, ln 28-34/ fig. 2).

**As to claim 5**, Yokoayama teaches the first mobile agent object includes the service object (para [0058], ln 1-5).

**As to claim 6**, Yokoayama teaches the first mobile agent object includes at least one service module operable to realize a function of the service object (para [0045], ln 19-24/ para [0049], ln 1-5/ para [0046], ln 1-7).

**As to claim 7**, it is an apparatus claim of claim 2; therefore, it is rejected for the same reason as claim 2 above. In addition, Yokoayama teaches the data structure to navigate (a server apparatus is equipped with method for distributing mobile agents where a traveling list [data structure] is added to the agent program when an agent is distributed, para [0009], ln 2-7), a first instruction / a second instruction (instruction for performing sending and loading, right col 8, ln 29-37/ the sending of the mobile agents 210 is performed by the mobile agent distribution program 106, col 2, ln 1-4).

**As to claim 8**, it is an apparatus claim of claim 6; therefore, it is rejected for the same reason as claim 6 above.

**As to claim 9**, Yokoayama teaches the installation of at least one service module in the mobile agent runtime environment (right col 8, ln 29-37).

**As to claim 10**, it is an apparatus claim of claim 5; therefore, it is rejected for the same reason as claim 5 above.

**As to claim 11**, Yokoayama teaches the data structure further comprises a runtime-data set associated with the service object (para [0058], ln 6-14).

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Kreller et al ( Us. Patent 6,981,251 B1), as applied to claim 1 above, and further in view of Wang (US 7,092,986 B2).

**As to claim 12**, Scheneiderman, Kreller do not teach the data structure comprises the instruction set that executed enables the use of an API associated with the second host computing environment. However, Wang teaches the data structure comprises the instruction set that executed enables the use of an API associated with the second host computing environment (a structure of the transparent mobile Ipv6 agent according to the present invention is illustrated. As show, a monitoring system 51 and application program 52 has standard functions and standard data structure [data structure] for internal processing a, and has different interfaces [set of interfaces] designed for different operating system. The internal calling the interface [API] of the application system 52, col 3, ln 40-45 and the established application system interface following

related interfaces... network access layer API [data structure]: It is responsible for calling an API related service across different network access devices, col 4, ln 4-14).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Scheneiderman, Kreller, and Wang's systems because the Wang's the instruction set that executed enables the use of an API associated with the second host computing environment would improve the teaching of Scheneiderman, Kreller's systems by allowing a transparent mobile agent to be adapted to various operating systems and network connection devices with resulting in quick information communication over the Internet.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheneiderman (US 2002/0156932 A1) in view of Kreller et al ( Us. Patent 6,981251 B1), as applied to claim 1 above, and further in view of Saulpaugh et al (US 7,016966 B1).

**As to claim 14**, Scheneiderman, Kreller do not teach accessing, on the at least one first computer, the instructions; and transferring the instructions from the at least one first computer to the at least one second computer through the communication medium. However, Saulpaugh teaches accessing, on the at least one first computer, the instructions; and transferring the instructions from the at least one first computer to the at least one second computer through the communication medium (col 29, ln 10-14/ ln 55-60/col 30, ln 27-31/ col 7, ln 47-55/ col 8, ln 1-5/ ln 36-43/ col 15, ln 20-40).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify teaching of Scheneiderman and Kreller to incorporate the feature of



accessing, on the at least one first computer, the instructions; and transferring the instructions from the at least one first computer to the at least one second computer through the communication medium because this avoids the complex configuration problems existing in conventional networks for communication with sharing resources.

***Conclusion***

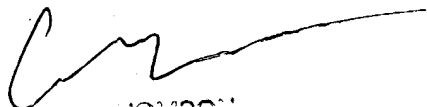
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

December 20, 2007

  
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SUPERVISOR, PATENT EXAMINER